TCAP EOC Algebra II
Criterion Referenced (CRT) Reporting Categories with State Performance Indicators

Reporting Category 1: Mathematical Processes	
SPI#	**State Performance Indicator**
3103.1.1	Move flexibly between multiple representations (contextual, physical, written, verbal, iconic/pictorial, graphical, tabular, and symbolic) of non-linear and transcendental functions to solve problems, to model mathematical ideas, and to communicate solution strategies.
3103.1.2	Recognize and describe errors in data collection and analysis as well as identifying representations of data as being accurate or misleading.
3103.1.3	Use technology tools to identify and describe patterns in data using non-linear and transcendental functions that approximate data as well as using those functions to solve contextual problems.
3103.1.4	Use mathematical language, symbols, definitions, proofs and counterexamples correctly and precisely to effectively communicate reasoning in the process of solving problems via mathematical modeling with both linear and non-linear functions.
Reporting Category 2: Number and Operations	
SPI#	**State Performance Indicator**
3103.2.1	Describe any number in the complex number system.
3103.2.2	Compute with all real and complex numbers.
3103.2.3	Use the number system, from real to complex, to solve equations and contextual problems.
Reporting Category 3: Algebra	
SPI#	**State Performance Indicator**
3103.3.1	Add, subtract and multiply polynomials; divide a polynomial by a lower degree polynomial.
3103.3.2	Solve quadratic equations and systems, and determine roots of a higher order polynomial.
3103.3.3	Add, subtract, multiply, divide and simplify rational expressions including those with rational and negative exponents.
3103.3.4	Use the formulas for the general term and summation of a finite arithmetic and both finite and infinite geometric series.
3103.3.5	Describe the domain and range of functions and articulate restrictions imposed either by the operations or by the contextual situations which the functions represent.
3103.3.6	Combine functions (such as polynomial, rational, radical and absolute value expressions) by addition, subtraction, multiplication, division, or by composition and evaluate at specified values of their variables.
3103.3.7	Identify whether a function has an inverse, whether two functions are inverses of each other, and/or explain why their graphs are reflections over the line y = x.
3103.3.8	Solve systems of three linear equations in three variables.
3103.3.9	Graph the solution set of two or three linear or quadratic inequalities.
3103.3.10	Identify and/or graph a variety of functions and their transformations.
3103.3.11	Graph conic sections (circles, parabolas, ellipses and hyperbolas) and understand the relationship between the standard form and the key characteristics of the graph.
3103.3.12	Interpret graphs that depict real-world phenomena.
3103.3.13	Solve contextual problems using quadratic, rational, radical and exponential equations, finite geometric series or systems of equations.
3103.3.14	Solve problems involving the binomial theorem and its connection to Pascal's Triangle, combinatorics, and probability.
Reporting Category 4: Geometry and Measurement	
SPI#	**State Performance Indicator**
3103.4.1	Exhibit knowledge of unit circle trigonometry.

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3103.4.2	Match graphs of basic trigonometric functions with their equations.
3103.4.3	Describe and articulate the characteristics and parameters of parent trigonometric functions to solve contextual problems.
Reporting Category 5: Data Analysis, Statistics, and Probability	
SPI#	**State Performance Indicator**
3103.5.1	Compute, compare and explain summary statistics for distributions of data including measures of center and spread.
3103.5.2	Compare data sets using graphs and summary statistics.
3103.5.3	Analyze patterns in a scatterplot and describe relationships in both linear and non-linear data.
3103.5.4	Apply the characteristics of the normal distribution.
3103.5.5	Determine differences between randomized experiments and observational studies.
3103.5.6	Find the regression curve that best fits both linear and non-linear data (using technology such as a graphing calculator) and use it to make predictions.
3103.5.7	Determine/recognize when the correlation coefficient measures goodness of fit.
3103.5.8	Apply probability concepts such as conditional probability and independent events to calculate simple probability.